RELATION OF TAXATION TO MONOPOLIES.

To the legislator and taxpayer taxation is a purely practical matter; to the economist it is a theoretical question having practical bearings. In a treatment of the general subject of economics taxation should be discussed in connection with the distribution of wealth. The State obtains most of its revenue by taxation, by appropriating to itself a portion of the goods resulting from productive effort. If the State is to take this intelligently, it must know from what source and upon what fund it is drawing the sums assessed; and it cannot know this unless the laws governing the distribution of wealth are understood. The only sound basis of a theory of taxation must be a true theory of distribution.

A study of the laws of distribution will reveal the ultimate source from which taxes must be drawn. The State's chief concern in framing tax laws is in the right choice of the particular objects upon which it is wise to levy her assessments. It is known that most objects have the power of shifting the burden of a tax; and it is desirable to know how this shifting process is going to take place, what laws govern the direction it is to take and determine where it is to end. Whenever a tax has been shifted the object taxed has been able to raise prices and change objective values. This change in objective values may not, but quite likely will, modify consumption. Now, the State may set out with the purpose of raising a revenue without altering objective values or modifying consumption, or it may desire to use the taxing power to accomplish just the opposite. Can the State do either one or both of these things, and if so, how? The legislator must find in the laws of distribution, including those which reveal the basis and nature of

value, the knowledge that will enable him to answer the question.

No eclectic treatment of taxation can be fruitful of results, hence the successive arguments which are here presented in the development of a theory of taxation constitute the links in a chain of deductive reasoning. The premises from which this reasoning sets forth being the laws of distribution, these laws are first enunciated as succinctly as is consistent with clearness. As the result of definite laws, which have been stated by the more recent economists, the several factors in production share very unequally in the distribution of the results of productive effort. Monopolies, in whatever way the one using the term may define its meaning, are generally conceded to receive an especially large share in distribution at the present time. In the case of no other recipient of the surplus of production, however, is there so much confusion in the meaning of terms used, and such indefiniteness of thinking; thus the following discussion of distribution may well devote a considerable space to discussing the basis of monopolies, to setting forth their real nature, and to classifying them as sharers in the surplus arising from production.

Economics has ample need of such an analysis as this. A clearer definition and classification of monopolies, if based on a fundamental analysis of the subjective and objective conditions of consumption and production, will throw much light on future discussions of distribution generally, and of taxation in particular. Having enunciated the laws of distribution and classified monopolies, the essay will pause briefly to characterize the different kinds of taxes in such a way as to bring out their real nature, and then proceed with the elaboration of so much of the general theory of taxation as pertains to taxes levied with the purpose of producing no other effect than that of yielding the State a revenue. The purpose of the essay as a whole is to make clearer the relation of taxation to monopolies.

The laws which, taken together, constitute the general theory of distribution are several in number. The gross results of productive effort must cover six items: First, the costs or sacrifices which producers undergo in production. Measured objectively in material goods, this item includes what society must give producers in order to place them in as good a position at the end of production as they were at the beginning. Second, the wages which laborers are able to secure in excess of remuneration for sacrifices. This share of the surplus may be termed surplus wages. It is not a differential fund, and its amount depends upon the standard of life which laborers seek to maintain, and upon the strength which they can exercise in enforcing their demands for such wages as will enable them to maintain or to raise their conditions of living. Third, land rents, the differential income received by the owners of those appropriated natural agents, whose productivity or desirability is greater than that of the least productive or desirable natural agents which society finds it necessary to appropriate. To this must be added a fourth share, commonly called rent by the business man. It is the income received by the owners of the natural agents on the margin of appropriation. There are no lands but what can command some rent; the owners of lands on the margin receive an income which, in economic literature, has been termed marginal rent. Fifth, the differential income which undertakers and skilled laborers can demand because of their superior intelligence or skill. General Walker has applied the term "profits" to the differential income of undertakers, but in the case of laborers, as well, special intelligence and skill enable them to secure differential wages. In the case of undertakers and laborers the differential amounts secured depend upon personal differences in endowments or attainments, and the common term of personal rent may well be employed for the income of both classes. This use of personal rent is exactly analogous to the use of land rent to designate the differential income

from natural agents. The sixth, and last, item, which the results of productive effort must cover, is interest on capital. The amount of this share is fixed, as the recent economists have shown, by the conditions which determine the value that men put on present, as compared with future, goods.

The fact that these items are here stated seriatim is not meant to imply that they share according to any given order in the distribution of the gross product. The portion which each receives is fixed according to a definite law of its own. None of the factors in distribution plays the rôle of a residual claimant.

These several shares having been provided for, each according to its own peculiar law, there still remains, in a progressive society such as our own, a large residue or free surplus, the study of whose distribution among the factors of production gives rise to some of the most fruitful investigations that have recently been made in economic theory. It is the distribution of this free surplus which chiefly interests us in this discussion of a theory of taxation; it is necessary, then, to state with some fullness the law which governs the apportionment of this fund among the factors of production.

Before doing this, however, it will be well to present, as clearly as may be, the relation which the several shares of distribution hold to each other. This can best be done by employing, in a modified form, some diagrams, with which the readers of Professor Patten's works are already familiar:

It is, perhaps, hardly necessary to explain that in Figure I the line *a j* indicates the quantity of goods produced, that the line *a f* represents the utility derived from the first increment of consumption, that the line *j g* that derived from the last increment, and that the whole figure *a f g j*, indicates the total sum of utilities possessing value. The costs necessary to produce these utilities are shown by the figure *a b i j*. The value of goods produced being fixed

by the margin of consumption, their total value is represented by the figure *a e g j*. The total utility which the consumption of goods affords consumers exceeds their total value by an amount indicated by the area *e f g*. This is the consumer's surplus. The difference between the costs and the total value of produced goods is the producer's surplus, represented by the figure *b e g i*.

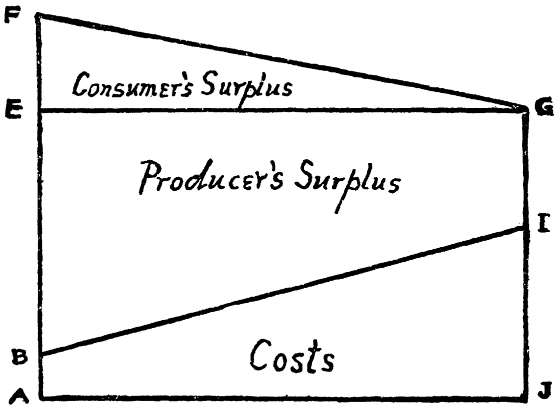

FIGURE I.

Let this fundament diagram now be so modified as to show the relationship which the several shares in distribution have been declared to hold to each other:

Figure II indicates the way in which the several shares participate in the distribution of the producer's surplus—that portion of the entire figure covered by the area *b e g i*. That part of the producer's surplus which goes to owners of natural agents, undertakers and other producers possessing especial intelligence or skill, as the differential incomes of land rents and personal rents, is shown by the triangle *b c i*. Within the quadrilateral *c d h i* are indicated the non-differential shares distributed as marginal rents, interest, and surplus wages. The five parts of the producer's surplus, personal rents, land rents, marginal rents, interest and

surplus wages, being each determined by an independent law, their amount at any particular time is a definite and fixed quantity. Hence this part of the producer's surplus may rightly be designated (as has been done in Figure II) as the fixed surplus. The remainder of the producer's surplus, *d e g h*, represents a fund which the various factors of production strive to secure. It is a free surplus which

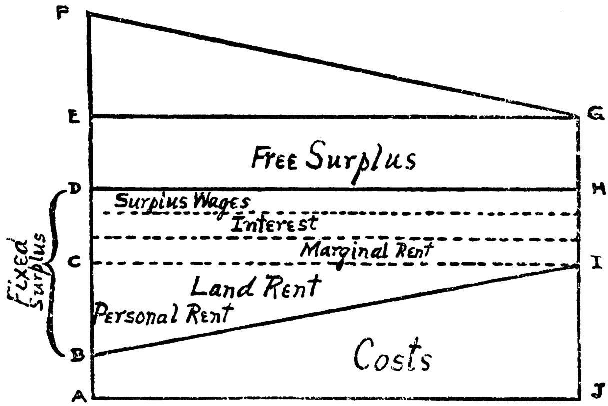

FIGURE II.

goes to the strongest contestants. The producer's surplus is divided into a fixed and a free portion. When speaking subsequently of fixed and free surplus, the fact that they are parts of the producer's surplus will be understood without using such a clumsy term as fixed or free producer's surplus.

The law according to which this free surplus is distributed may now be discussed. As stated by Professor Patten, in his "Stability of Prices," the law is as follows: "Of the factors necessary for production, that factor which tends to increase at the slowest rate will reduce the shares of the other factors to their lowest limits, will have the benefits of all improvements, and must bear all permanent burdens." These factors, according to the classification usual at the

present time, are grouped under the four heads, natural resources or land, labor, capital and intelligence. As concerns the rates of the increase of these four groups, it is probable that the first is, as a whole, increasing the most slowly. Each group, however, consists of many parts, or of many different kinds of enterprises and industries, which are increasing as productive agents at various rates of rapidity and slowness. Although land constitutes the group which, as a whole, is increasing the slowest, it is nevertheless true that parts of other groups are increasing more slowly than some forms of natural resources are being utilized in production. It is necessary, then, in discussing the distribution of the free surplus, not to compare the four large groups with each other, but rather to contrast the individual parts or factors which enter into the large groups. If factor be used in this narrower sense, Professor Patten is strictly accurate when he says that, "Whether any factor obtains a large or small share depends upon its relative rate of increase."* Stated with mathematical precision the law of the distribution of the free surplus would be formulated in this wise: The free surplus of production, the benefits of improvements which increase the free surplus, and all permanent burdens are distributed among the factors necessary to production in

*"The Theory of Dynamic Economics," p. 93. Professor Patten illustrates the working of the above law as follows: "The most extreme case would be when there was no demand for an increase of any of the factors but one. The most slowly increasing factor would secure all the surplus value, and the more rapidly increasing factors would obtain none of the surplus, except their share of the differential gains. Such a condition of affairs would never happen under actual conditions. It merely represents an ideal case, and shows how the distribution of surplus value depends on objective values. Most of the differential gains, however, will be absorbed by rent and profits. In the earlier stage of progress rent will be the prominent element, while in the later stages profits become more important. The increase of intelligence causes society to esteem more highly what were previously regarded as the poorer natural resources, thus reducing the relative importance of rent, and at the same time the increasing differences in men tend to augment profits. . . . . There is, however, no sharply defined line between rent and profits on the one hand, and interest and wages on the other. . . . . In a dynamic society the tendency becomes stronger to confine rent and profits to differential gains, and to give all the surplus value to the capitalists and laborers. Yet any change in the relative rates of increase will change the distribution of the surplus value, giving a part of it to landlords or to the managers of industries."

inverse ratio to their rates of increase. This law, however, is to be understood as a general one, explaining the normal distribution of the free surplus. It is possible for sudden changes in particular industrial activities, or in legislation, temporarily to suspend the regular operation of the law, to the advantage of the less favored factors in production.

In order fully to explain this law it is necessary first, to show what are the slowest increasing factors which obtain the benefits arising from production and absorb the increasing fund of the free surplus; and second, to demonstrate that these slowest increasing factors must also bear the permanent burdens which nature, or society by tax laws or otherwise, may impose on any agent of production. The former of these two considerations involves the definition, discussion and classification of monopolies; for it will be found that the slowest increasing factors of production are certain kinds of monopolies, whose real nature can be explained only by showing their relation to the various other forms of monopoly.

By a monopoly is meant any productive agent possessing monopoly force. A monopoly force is that which gives to a productive agent the disposal of a definite portion of the surplus resulting from production. This is a broad definition but it is one that will be seen, as the discussion proceeds, to apply to but few factors that have not been more or less frequently termed monopolies. It is broad, chiefly because it indicates the common element of all monopolies and makes it possible to bring them all into relation with each other.

No progress can be made with a discussion of monopolies without first clearly perceiving the basis upon which they rest. This basis is a dual one, to be found in the subjective conditions of men as consumers and producers, and in the objective conditions under which production is carried on. The observation and analysis of objective industrial phenomena will not alone suffice; indeed, the initial point of

the study must be the investigation of the wants and desires of men. These wants and desires are the forces which impel men to adopt and insist on certain peculiar forms of consumption. Consumption thus holds the helm and dictates the course which production must follow. If consumption insist stoutly upon having things which are scarce or difficult to obtain, it furnishes the first of the conditions which make possible the establishment of a strong monopoly. If consumption have the inclination and ability easily to readjust its demands when the objective conditions of production make the satisfaction of those demands a difficult matter, it can partially, if not wholly, take from any particular industry its monopoly power. As between the laws of consumption and those of production, the former are of the greater assistance in disclosing the real foundation of monopolies, whatever may be the form they take in production.

The other fact which gives monopolies a subjective basis is the existence, among producers, of different degrees of intelligence and skill. In producing the things demanded by consumers certain producers, by virtue of their superior endowments or attainments, have an advantage over others; they possess a monopoly force by means of which they are able to secure an extra portion of distributed wealth.

The objective basis of monopolies, that is, the objective phenomena of production which assist an industry to secure a monopoly force, results, as is well known, from the natural and artificial limitations, which condition the supply of those goods and services that consumers demand. Natural resources, especially those necessarily employed in the production of particular kinds of goods, are either limited in quantity or available at any given time under conditions of increasing cost; the same is true of the number of desirable locations for dwellings, sites for business blocks and manufacturing establishments, and of possible routes for profitable transportation lines. This fact gives to the owners of natural agents or desirable sites and routes a monopoly power,

provided the condition of consumption be such as to enable them to take advantage of their ownership by raising prices.

At any given time, then, the strength of the monopoly force which may be secured by an industry will be decided by two things: Objectively, by the physical conditions under which production is carried on to supply the goods demanded by consumers. These conditions decide in what lines of productive effort competition is wholly or partially restricted without recourse to artificial means, and determine in what industries competition can be checked or eliminated by legislation, combination of capital or other artificial devices.

These objective conditions, however, are of significance only because of the conditions controlling the consumption of the goods produced. To restrict or exclude competition in any line of production, and thus to gain control of it, is of value only to the extent that consumption is controllable. The intensity and stability of the demand for the articles produced by a monopoly are what give the monopoly its strength and make it a source of profit. The intensity of the demand which consumers make for the products of a monopolized industry determines the height to which the prices of those products can be raised. The stability of the consumers' demand measures the extent to which they will insist on consuming a particular product instead of trying to satisfy their desires by using some other article.

A monopoly was declared to be any productive agent possessing a force which gives the productive agent the disposal of a definite portion of the producer's surplus; and in the preceding discussion of the basis of monopolies it was said that better grades of land and superior intelligence and skill give their possessors a monopoly force. The incomes derived have been referred to as differential, and termed land rents and personal rents. Lands on the margin of cultivation of availability for other uses than cultivation also constitute monopolies. There being no no-rent lands, and land for many purposes being of limited quantity, the owners of the

least desirable, but necessary, lands are able to command a definite portion of the surplus. The income was named marginal rent. Likewise capital is able to command a definite portion of the producer's surplus; the strength of its monopoly force being dependent on the value which men place on present, as compared with future, goods. Wage-earners, as a class, also secure a portion of the surplus; the force of the monopoly they possess being determined by their standard of life. Such are the monopoly forces that control the distribution of the fixed surplus into five general funds. The forces which account for the disposal of the free surplus give to certain monopolies not only what they may secure in the form of land rents, personal and marginal rents, surplus wages or interest, but more than this. Unless prevented by the State, certain monopolies will receive the entire free surplus.

Before proceeding to discuss the monopolies which secure the free surplus it will be best to give an outline of the complete classification* of monopolies that is here had in mind. A few terms used will require explanation:

			FORM.	INCOME.
Monopolies. .	Differential	. . . . . .	Land,	Land Rent.
		. . . . . .	Personal,	Personal Rent.
	Non-differential or Marginal . . .	Optional .	Land,	Marginal Rent.
			Goods,	Interest.
			Labor,	Surplus Wages.
		Exclusive	Private,	Tallage.
			Public,	Fiscal Taxes.

* The classification of monopolies presented and discussed in this paper is to be accredited mostly to Professor Patten. On January 15, 1894, the author read before Professor Patten's Seminary, at the University of Pennsylvania, a paper on "The Theory of Taxation," in which a distinction was drawn between the two kinds of monopolies here classed as "Differential" and "Exclusive." The discussion which followed the paper induced Professor Patten to elaborate and present to certain members of the Seminary a much more comprehensive classification, which, after slight modifications as the result of suggestions made by the members of the Seminary, assumed the above form. In rewriting his original paper for publication the author has thought it best to strengthen his discussion of taxation by bringing it into relationship with the more comprehensive and fundamental classification of monopolies.

By this classification every recipient of the distributed surplus is termed a monopoly; it receives a definite portion because it possesses a monopoly force which enables it to command that particular amount. The preceding pages have sufficiently explained the basis of the division of monopolies into differential and non-differential made in the classification. The non-differential monopolies may with equal propriety be termed marginal. The fund from which they draw is one fixed by the margin of consumption. The former include lands of superior fertility, locations of especial desirability, and personal intelligence and skill of the higher order possessed by undertakers and skilled laborers. These differential monopolies have no power of exerting any influence upon prices. They simply control the distribution of a fund whose amount is determined by prices. Prices are determined at the margin of consumption by the forces possessed by the marginal monopolies. These forces not only determine what the prices of labor and capital as a whole shall be, but also decide how much society must pay in order to secure the articles which are produced at the margin. The non-differential or marginal monopolies are of two kinds, which may be described as Optional and Exclusive.

This use of the term optional being new in economic literature calls for explanation. It includes the non-differential monopolies enjoyed by individual owners of land, goods or capital and labor. Now, as was stated in a preceding paragraph, each one of these three general factors of production possesses a monopoly force resulting from an independent and definite law. Capital, as a whole, can command a certain part of the surplus as interest because men value present goods higher than future ones. The individual owner of capital, however, possesses not only this, but an additional monopoly force, because of the fact that he enjoys several options as to the way or place in which he may invest his means, and because he always has the choice between

investing his capital or deriving enjoyment by consuming it. If the demands for capital in the railroad or banking business be weak, he has the option of investing in a hundred other enterprises; if no opportunities for investment offer as much satisfaction as can be gotten from consuming the capital, he will choose to do the latter. He possesses by virtue of these facts a monopoly force, which may rightly be termed optional. The marginal landowner, likewise, possesses a similar optional monopoly. The marginal rent which he can command by using his land for agricultural purposes will never be less than he can secure by changing his farm into pastures or ranches. The rent which he can secure by raising wheat will not be less than he can obtain by growing corn, oats or barley. In a similar way an individual wage-earner has a monopoly force, due to the fact that he has the option of several kinds of work. The option is, of course, limited to the group of laborers of which he is a member. He does not have the option of entering another non-competing group; but within his group he may choose between several kinds of manual labor, between bookkeeping and running a small store, or between many other employments. His option allows him to command the wages of the most advantageous occupation in his group. Reference is here had to non-differential wages; if the person possess greater skill or intelligence than other workmen doing the same kind of labor he will also be able to secure differential wages.

The other kind of non-differential monopolies was termed exclusive, because they represent factors of production that are able to exclude competition. In the differential and optional monopolies the various subjective and objective conditions to which attention has been called bring about a restriction of competition, but not an elimination. Land rents and personal rents are competitive. Marginal rent, surplus wages and interest have each a very definite maximum which competition will not let them pass. In certain

industries, however, it is possible to exclude competition, and they thus possess an exclusive monopoly force. This exclusive monopoly force may be possessed by a business as a whole, or may be held only by certain branches of a large enterprise; every complex business necessarily includes many factors of production under one common organization; some of these factors will be differential monopolies, some optional and others exclusive.

Exclusive monopolies are classified as Private and Public. What each of these is and what kind of an income each obtains require a discussion of some length. Before beginning this it will be well to stop at this point in the discussion of monopolies long enough to bring out more clearly the relationship of the foregoing classification of monopolies with the general theory of distribution that was represented by Figure II on page 73. The following diagram will show that relation graphically:

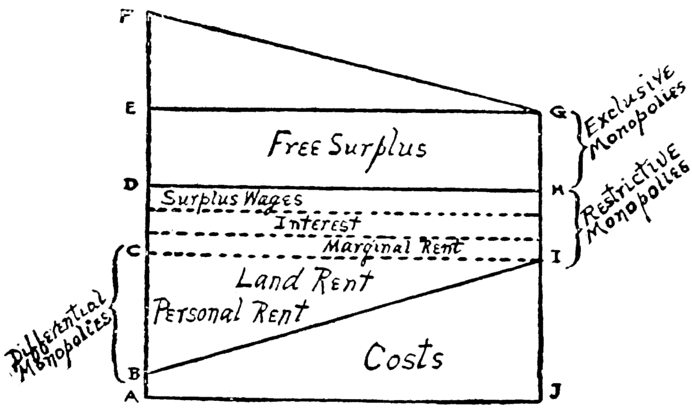

FIGURE III.

The exclusive monopolies are here represented as receiving all the free surplus, they being of two kinds, public and private. The former kind will be discussed more at length later on; it is the monopoly which the State holds in her

taxing power, a power that enables her to take of the surplus of production such a sum as she may desire. Under private exclusive monopolies are included those that are able to exclude competition.

There are several means through the aid of one or more of which an industry or a factor of production can exclude competition. Legislation affords one of these means in granting patents, copyrights and charters. The charters granted to transportation, electric lighting and gas companies often furnish the only condition necessary for the exclusion of competition. By the combination of capital in large amounts, also, competition is often prevented. The operation of the trust and pool is well known. The industrial enterprises, thus combined under one ownership or management, may consist principally of the differential monopolies, land and intelligence or skill, as in the case with the Standard Oil Company, or the businesses which these unite may be but secondarily differential monopolies, and consist chiefly of the optional class. Land may be required in but comparatively small amount, and the employment of labor and capital be necessarily large, a condition of things which holds true of the Sugar Trust. The Standard Oil monopoly was made possible because of the limited area of oil lands; the Sugar Trust has been established because Mr. Havemeyer has great sagacity, and has had command of very large amounts of capital. The Sugar Trust has driven competition from a field where it was strong, and holds it out at present only by a very sagacious management of large amounts of capital.

The various special ways by which competition is actually excluded or restricted in industry need not be dwelt upon at length. Suffice it to say that the more fully competition can be excluded from an industry the stronger becomes that industry's position in production, the more is it able to check the rate of its increase, and thus to compel society to pay liberally for any rapid expansion that may be desired of the business. The slowest increasing factors of production are

those that are able to exclude competition, in other words, the exclusive monopolies. Theirs is the industrially strong position. The differential and optional monopolies possess forces which give them definite portions of the producer's surplus; the exclusive monopolies obtain these portions and more; to them goes the free surplus.

As Figure III indicates, the producers on the margin of production obtain none of the fund secured by holders of differential monopolies. If these marginal producers possess only optional monopolies, they will, as a class, receive, at any given time, only that portion of the surplus which the monopoly forces of marginal rent, surplus wages, and interest are able to command. The individual members of this class of producers will be able to control differing portions of the fund thus distributed, because they possess options of unequal strength.

If the holders of optional monopolies are not producing along the margin, they will also secure a part of the differential fund distributed as rents, land and personal. Any producer or business having only differential and optional monopoly forces is operating in the realm of competition. If, however, the subjective conditions controlling consumption, and the objective conditions of production, to which reference has been made, be such that the increase of any form of production can be rendered slower than the rate with which society enlarges its demand for the products of that particular kind of production, then the producers in that field possess a monopoly due to the exclusion of competition. The comparative strength of the monopoly forces thus held depends upon the relative rates of the increase of those factors of production in which the exclusion of competition is possible. The exclusive monopolies divide among themselves the free surplus which exists for distribution at any given time in the ratio of their relative strength.

The restricting phrase, "at any given time," is inserted in the preceding sentence because the different portions of

the fixed surplus change in amount from time to time. The monopoly forces yielding the incomes, rents, interest and wages vary. While agricultural rents, for various reasons, are falling in America, urban rents are rising with the growth of cities, and with the increase of economic and social conditions which give to limited areas great value, as business sites or as "fashionable quarters" for the residence of the wealthy. The differential incomes which skill and intelligence command as personal rents are probably increasing somewhat. Surplus wages are growing with the rise in the standard of life. Interest is doubtless falling. In a word, the fixed portion of the producer's surplus is a definite sum at any given time; but changes constantly, and is at present probably increasing. But the growth of the fixed surplus, as a whole, does not keep pace with the progress in production. The free surplus is becoming steadily larger as society advances.

The free surplus has been shown to go to exclusive monopolies. At present the monopoly force which commands most of the free surplus is held by private individuals. It will be shown directly that the State may possess herself, through tax laws, of as strong an exclusive monopoly force as she may choose to have. The income derived by private exclusive monopolies is one with which economic literature thus far has not dealt. It has no name. In the classification on page 78, I have called it "tallage." The term suggests a levy which the politically or industrially strong make upon those who are weaker. According to Webster the verb "tallage" still means "to lay an impost upon; to cause to pay tallage." In presenting this word for introduction, I have sought to coin a term whose meaning suggests as much of the new idea as possible. This tallage does, and, at the same time, has the advantage of not being in common use.

It was said that in order to explain the law of distribution fully, it was necessary to show which are the slowest

increasing factors that obtain the benefits arising from improvements in production; and second, to prove that these slowest increasing factors are also obliged to bear all the permanent burdens that may be imposed by nature or society upon any agent of production. The former of these two tasks has been performed by the foregoing analysis and classification of the several monopoly forces which control the distribution of the surplus. The second task can be accomplished more quickly.

The statement of the law of distribution was: The free surplus of production, the benefits of improvements which increase the free surplus, and all permanent burdens are distributed among the factors necessary to production in inverse ratio to their rates of increase. That the slowest increasing factors of production, the exclusive monopolies, must bear all permanent burdens, can be shown by either one of two lines of argument: The factors of production possessing the monopoly force which makes them differential monopolies, have that force because society has need of those factors. Society having this need gives the differential monopolies enough of the surplus to cause them to increase with sufficient rapidity to enable them to supply society's wants. If an added burden be permanently imposed upon such factors and a part of the surplus formerly obtained by them be taken, their rate of increase will lessen. This will strengthen their monopoly force. Society will lose a part of the supply desired, unless it increase the portion of the surplus given the differential monopolies by bidding higher for the products of these factors of production. The same is true of those factors which are optional monopolies. Both kinds of monopolies obtain definite portions of the surplus, portions which are safe-guarded for them by the monopoly forces whose nature and basis were outlined above. Society does not give these differential and optional monopolies all the surplus, and, as long as that is true, these factors will be able to pass the burdens, which may be permanently imposed on them, over to those factors,

a part of whose income is derived from the free surplus, and is, therefore, not insured against attack by virtue of possessing differential or monopoly forces. The truth of this conclusion has been excellently shown by every attempt to tax interest. Capital, possessing a monopoly force which enables it to command a definite portion of the fixed surplus, is safe-guarded against the burdens which taxes may impose upon in terest. Such burdens are inevitably shifted to the free surplus.

The other line of argument by which the same conclusion is reached is similar and differs only in being based more directly upon the phenomena of value. The industries receiving none of the free surplus can bear no added burdens, because, if such burdens be imposed, they must either raise the prices of their products or lessen the supply. If the supply be kept intact, and prices be increased by the amount of the burden, prices of other products must fall. The burden will be shifted upon other producers, because general values cannot rise. Likewise a burden falling on an industry increasing at a medium rate will also be shifted. The amount of free surplus which such an industry is receiving is only sufficient to induce it to maintain the position it holds in production. Society gives it a certain amount of the surplus to induce it thus to maintain itself. Unless it can shift the permanently added burdens, society will find the desired supply of the products of that industry lessened. Permanent burdens therefore, rest on the slowest increasing factors.

Taxes are one form which a permanent burden, or requisition, upon the surplus of production may take. Like other burdens, they will, after they have been in force long enough for business to adjust itself to the conditions they establish, fall, in their final incidence, on the slowest increasing factors of production, the exclusive monopolies. Taxes thus stand most intimately connected with the problem of distribution and the theory of monopolies.

This relationship of taxation to distribution and monopolies can be considered to somewhat better advantage if the foregoing classification of monopolies be somewhat modified, so that the fixed and free surplus will be more definitely contrasted. Thus changed the classification becomes:

			FORM.	INCOME.	
Monopolies	Restrictive	Differential	Land	Land Rent	Fixed Surplus
			Personal	Personal Rent	
		Optional	Land	Marginal Rent	
			Goods	Interest	
			Labor	Labor	
	Exclusive		Private	Tallage	Free Surplus
			Public	Fiscal Taxes	

There is only one new term introduced into this classification—"restrictive." As was said above, the differential and optional monopolies are the realm of competition. The monopoly forces do not here prevent competition, but merely restrict it within certain limits. The forces say where competition shall have sway. The exclusive monopolies, however, exist by means of excluding competition. The division of monopolies into restrictive and exclusive, therefore, is a rational one. It is a useful one for the purposes of this paper, because it puts those monopolies to be discussed into a separate class.

In entering upon the discussion of taxation we ought to keep clearly in mind both the relation which costs, the fixed and free surplus, and consumer's surplus bear to each other, and the forces which control their changes. In a progressive society the producer's surplus is increased both by a decrease in cost and by a rise of the margin of consumption. The line which divides the consumer's surplus and producer's surplus (compare Figure I.) is not fixed. Were the margin of consumption to fall the consumer's surplus would grow larger and the producer's surplus would decrease; if the margin of consumption rises the opposite will take place. Social progress implies a rise in the margin of consumption, and a consequent increase in the producer's

surplus as a whole. Furthermore, as was pointed out on page 84 the line dividing the fixed and free portions of the producer's surplus is a variable one, the increase of the free surplus being, at present, more rapid than that of the fixed surplus.

Among the forces which have the power of altering the relation of the consumer's and producer's surpluses, or of changing the relative amounts of the fixed and free portions of the producer's surplus, are tax laws. The real nature of taxes is shown by the changes which they produce of this kind; in this way is their influence on consumption production, and distribution indicated. The best classification of taxes that can be made is one based on their power to produce such changes.

Classified upon this basis taxes are of three kinds, fiscal, social and industrial. That may properly be called a fiscal tax which takes a portion of the free producer's surplus without affecting the amount of the fixed surplus, or producing any change in the consumer's surplus. Such a tax has no effect on consumption, nor on production as a whole; it simply diverts a larger or smaller part of the free surplus from the pockets of the owners of the slowest increasing factors in production into the public treasury. That may be called a social tax which, although it falls ultimately on the producer's surplus—as all permanent burdens do—has, for its immediate effects, modifications either of the fixed surplus or of the consumer's surplus. Such modifications produce social effects through changes in production and consumption. That tax may be called industrial, which is levied for the purpose of so applying the proceeds of the tax as to increase the free surplus by more than the amount of the tax. A tax, raised and applied to the improvement of such an important waterway as the Great Lakes, would be an example. An industrial tax may sometimes take the form of a pure business transaction. Such will be the case if the United States decides to sell its bonds to secure capital

with which to build the Nicaragua Canal, and then pays the interest and principal of the bonds out of the future receipts from the canal.

To give a complete presentation of the theory of taxation, one that treated each of the three kinds of taxes fully and brought them into relationship with the theory of monopolies as presented above, would carry the discussion beyond the limits of this paper. From the sociological standpoint, the social taxes are the most important. A great deal of good can be accomplished by an intelligent use of them by the State. Their nature and influence is inadequately recognized, they demand a full and searching analysis. In this paper, however, that analysis will be waived in order to direct attention to fiscal taxes with the purpose of answering the question, how and where a tax may be levied so that it will yield a revenue without affecting either consumption or production, *i. e.*, without having any social effects.

The source of fiscal taxes, as has been indicated, is the free surplus. The objects upon which such taxes ultimately fall are the slowest increasing factors of production. These are the exclusive monopolies, by whom the free surplus is obtained. Fiscal taxes are paid out of the tallage, the income which the exclusive monopolies derive from the free surplus.

A tax having the free surplus as its source, and the tallage received by the various special monopolies as the objects which bear its burdens, may be so levied as to have no social effects. This levy may be made directly upon the tallage, or it may be placed there indirectly by being first imposed upon objects having the power of shifting the imposition in such a way that neither consumption nor production will be modified.

A direct tax on the slowest increasing factors of production can have no social effects until the tax becomes heavy enough to absorb the entire tallage. There will be no social changes resulting from an alteration in consumption, because

the absorption of the tallage by the State will not affect prices. The products or services of the exclusive monopolies have prices so fixed as to yield maximum gains, hence these prices cannot be raised, to cover the tax, without decreasing the gains. These direct fiscal taxes, however, must be levied upon the gross receipts of exclusive monopolies rather than upon the gross product. If every product be taxed, the exclusive monopoly may find that the point of maximum gains is to be reached by raising prices and decreasing sales. The tax on gross product in that case would not be purely fiscal, but partly social. A direct tax of this kind may be imposed upon tallage without diminishing production. The output of exclusive monopolies will not be lessened nor the investment of capital in them be checked before the tax absorbs all the tallage. As long as the exclusive monopolies receive gains equal to those which they command as possessors of optional and differential monopoly forces, they will prosecute and develop their business activities.

Fiscal taxes may also be indirect. This can be shown to be possible by a line of reasoning analogous to that employed to prove that permanent burdens imposed upon production must be borne by the slowest increasing factors. Fiscal taxes were defined to be those which take a portion of the free producer's surplus without affecting the amount of the fixed surplus or producing any change in the consumer's surplus. An indirect tax being shifted by the first objects upon which it is imposed, cannot be fiscal, unless the tax is shifted from the fixed to the free surplus without lessening the former and without increasing or decreasing the consumer's surplus through changes in consumption. If, however, a moderate tax be levied on a factor of production in which competition obtains, *i. e.*, on a differential or an optional monopoly, and if the factor be one whose articles of production are those for which there is a strong and stable demand, the tax can be shifted without producing social effects. The prices of the articles produced by such a factor can rise

sufficiently to cover a moderate imposition, without sensibly affecting the consumption of staple and strongly demanded articles. This rise in the prices of the taxed articles will cause a readjustment of objective values. General objective value cannot rise, hence the value of some articles must fall. The articles whose price will permanently fall will be those produced by the exclusive monopolies. They are the slowest increasing factors, and, according to the law of distribution, must bear permanent burdens. The shifted tax will thus reach the tallage and be borne by it. Production, however, will not be affected, as was shown above, unless the entire tallage be taken.

It will be seen by the above that the number of indirect taxes which are purely fiscal cannot be very large; the number of articles whose price can be increased without sensibly affecting their consumption being relatively small. There are, however, many staple articles whose price may be moderately increased without exerting more than a slight influence upon consumption. Indirect taxes imposed upon them would have but small social effects and would be chiefly fiscal in character. The legislator, therefore, who is desirous of imposing indirect taxes for the purpose of securing a revenue without thereby modifying social relations to any noticeable extent, has ample opportunity for realizing his aims.

In the imposition of an indirect fiscal tax there is no ethical question involved. Such a tax is a purely economic phenomenon. The tax having been shifted, by changes in prices, from the fixed to the free portion of the surplus, and this having taken place without sensibly modifying the consumer's surplus, the ultimate effect of the tax is simply to take a part of the free surplus. Society simply prevents a part of the free surplus from becoming private property. Without the tax, the entire free surplus would go as tallage to the owners of exclusive monopolies; with the tax imposed, they receive a sum decreased by the amount appropriated by the public. Society has the first claim on the results of social

progress; and, in the case of indirect fiscal taxes, the State supplies its needs by a law as purely economic as that governing the rate of interest. Should the owners of exclusive monopolies find that the State had enacted a law which diminished by a certain common percentage the tallage they respectively received they would have no grounds for complaint. The tax law would change the conditions under which they must produce, but all would produce under the same conditions. A change in the current rate of interest would produce a like effect. Questions of equity and justice would arise in neither case.

If, however, the State does not in this general manner divert into its own possession that part of the free surplus, which the public finances may require, before the same has become private property, but allows the entire free surplus to be distributed as tallage to the exclusive monopolies, then the levy of taxes may involve problems of equity. Indirect fiscal taxes affect all individuals alike, in that they modify the conditions of production equally for all. This cannot be true of direct fiscal taxes. They must be levied on the tallage of particular exclusive monopolies, and must necessarily change the relation which these monopolies bear to each other, and alter the respective positions which they hold as industrial factors. There are different classes of producers enjoying exclusive monopoly privileges and a direct fiscal tax must change the apportionment of the free surplus among these classes. These classes are of various degrees of importance to the economic and moral progress of society. As long as the State does not take by direct taxes all the tallage obtained by these different exclusive monopolies, they may rightly insist that the State distribute its impositions among them with equity. The only true basis of an ethically just apportionment of the surplus among these several classes is the services which they respectively render society. Hence, in levying direct fiscal taxes upon the slowest increasing factors of production, *i. e.*, upon the tallage of the

exclusive monopolies, the State ought so to distribute its impositions among the several kinds of exclusive monopolies as to favor the respective classes according to the economic use they make of the free surplus received. This should be done in order that the larger amounts may be left in the possession of those who do most to promote social welfare and progress.

It will, of course, be obvious to many that the facts of distribution, as outlined in this paper, and especially the theory of monopolies here presented, have important bearings on other questions than taxation. Probably nobody regards the present distribution of wealth as an ideal one. That it is far from being such is attested by our desire to see it made better. It is being improved at present by the steadily growing strength of the forces which give larger shares to the lower ranks of producers. As these forces are made stronger, will distribution become less unequal. The existence of dependent social classes having no firm standard of life, and little power or desire to raise that which they do possess, is cause as well as evidence of the present glaring inequalities in distribution. A larger sharing in the results of social progress is to be secured the less fortunate classes by improving the objective and subjective conditions which operate to raise the standard of life. In this way will the monopoly force be strengthened that gives them command over a portion of the surplus. Taxation is one, but only one, of the forces that may be employed to further that end. Fiscal and industrial taxes will yield a revenue by means of which the objective conditions of life may be made better. Social taxes will do this also, and may, at the same time, be employed to effect desirable social changes. At any given time the surplus of production is distributed by definite monopoly forces. The operation of these forces can be modified by fiscal, social and industrial taxes, the nature and operation of which this paper has attempted partially to set forth.

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